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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,424	06/16/1999	YASUTOMO NISHINA	450100-4916	5326

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FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER	
SALCE, JASON P	
ART UNIT	PAPER NUMBER
2421	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/334,424	NISHINA ET AL.	
	Examiner	Art Unit	
	Jason P. Salce	2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *44-50,53,58-63 and 65-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *44-50,53,58-63 and 65-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/05/2008 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 44-50, 53-55, 58-63 and 65-68 have been considered but are moot in view of the new ground(s) of rejection.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claim terminology computer readable medium is not defined in the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 60 and 67 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Referring to claims 60 and 67, the claims are directed to a computer-readable medium for storing a program that execute steps, which is a program per se with no accompanying computer to execute the program claimed (**see MPEP 2106**).

The claims are further drawn to a signal, because the specification fails to define a computer-readable medium to be a physical storage disk/medium or a transmission signal/carrier wave, therefore the claimed computer-readable is interpreted as a signal. Signal claims have been deemed non-statutory (**see MPEP 2106**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 44-50, 53 and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. (U.S. Patent No. 6,522,672) in view of Eyer et al. (U.S. Patent No. 5,801,753).

Referring to claim 44, Matsuzaki discloses an information transmitting apparatus, which transmits a plurality of signals (**see Figure 1**), said signals including at least video

signals and audio signals (**see Column 4, Lines 45-48**), to an information receiving apparatus (**see Column 9, Lines 24-25 for receiving information at a receiver**).

Matsuzaki also discloses a plurality of encoding means for separately encoding each of said video signals and each of said audio signals (**see elements 82v and 82a in Figure 2**).

Matsuzaki also discloses a first multiplexing means for multiplexing a plurality of pairs of encoded signals (**see elements 34a through 34n in Figure 3**), each pair of encoded signals having one encoded video signal and one encoded audio signal (**see Column 4, Lines 41-50**).

Matsuzaki also discloses a second multiplexing means for multiplexing the multiplexed plurality of pairs of encoded video signals and encoded audio signals (**see program multiplexing section 36 in Figure 1 and Column 6, Lines 5-39 for multiplexing the plurality of pairs of encoded video signals and encoded audio signals from multiplexing units 34a through 34n**).

Matsuzaki also discloses a control means for controlling a multiplexing ratio among the plurality of signals in the second multiplexing means (**see Column 6, Lines 5-39 for the second multiplexing means being controlled by control section 33**) and controlling a video data occupation bandwidth, an audio data occupation bandwidth, and a program data occupation bandwidth in relation to a transmission channel bandwidth (**see Column 4, Lines 63-67 for Matsuzaki disclosing that the multiplexing control indicates preferentially multiplexing of the information with higher priority by controlling on/off of the multiplexing according to the priority**

for each encoded bit stream 75). ***For further support, note Column 6, Line 60 through Column 7, Line 16 for multiplexing according to a priority table. Therefore, a video, audio and data occupation bandwidth is clearly controlled in relation to the channel bandwidth available for transmitting programs.***

Matsuzaki further teaches that said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased (**see Column 2, Lines 26-28, 35-39 and 65-66 and Column 3, Lines 1-4 and Column 4, Line 63 through Column 5, Line 3 for controlling the multiplexing ratio by controlling how much information is added to the encoded bit stream, which in turn "*that multiplexing or not multiplexing certain media information is supposed to control a transmission rate of the media information*"**). ***Therefore, if audio and video data have a low priority and program information has a high priority, more program information will be transmitted, thereby increasing the transmission rate of the program.***

Although Matsuzaki discloses that the multiplexed signal can be received by a client receiver (**see Column 9, Lines 21-25**), Matsuzaki fails to teach that the information receiving apparatus reads content of a program information data of a current program and a next program at a re-transmission cycle of the program information data of the current program and the next program, and recognizes a transmission status of the program information data indicating whether the program information data is being transmitted.

Eyer discloses teach that an information receiving apparatus reads content of a program information data of a current program and a next program (**see Column 12, Line 50 through Column 13, Line 19 and Figure 2 for a receiving apparatus processing trickle and demand data streams that represent program information data (*further note Column 15, Line 62 through Column 16, Line 44 for the trickle and demand data streams containing current and next program information data*) for different time periods**) at a re-transmission cycle of the program information data of the current program and the next program (**see Column 15, Lines 51-61 for repeating the trickle and demand data streams at different repeating/retransmission cycles**), and recognizes a transmission status of the program information data indicating whether the program information data is being transmitted (**see Column 17, Lines 36-50 for the decoder/receiver identifying a PID , which indicates location of the program information data can be retrieved and therefore teaches a transmission status of the program information data indicating that the program information data is being transmitted at a current location for retrieval**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the receiving apparatus, as taught by Matsuzaki, using the receiving apparatus functionality, as taught by Eyer, for the purpose of improving the responsiveness and user friendliness of the program guide function by ensuring that the memory in a subscriber's decoder always holds a database which is up-to-date for current programming (**see Column 5, Lines 64-67 and Column 6, Line 1 of Eyer**).

Referring to claim 45, Matsuzaki discloses that the transmitting apparatus transmits the plurality of signals as a single transport stream (**see Column 8, Lines 40-44 for transmitting a single transport stream**).

Referring to claim 46, Matsuzaki discloses a database means for providing data that relates to transmission rates of the plurality of signals at each time point (**see Figure 4 for a priority correlation table for indicating priorities for multiple types of media and Column 7, Lines 20-22 and Column 5, Lines 46-53 for adding time information so that a "time point" can therefore be determined**), wherein the control means controls the multiplexing ratio while referring to the database (**see Column 8, Lines 1-7**).

Referring to claim 47, Matsuzaki discloses that the control means controls an output rate each of the plurality of the encoding means (**see again Column 8, Lines 1-7 and note that setting the multiplexer with a priority for either the video, audio or data will control the output rate of that particular piece of information**).

Referring to claim 48, Matsuzaki discloses that the pluralities of signals further comprise program information (**see Column 4, Lines 45-48**).

Referring to claim 49, that Matsuzaki discloses an information transmitting apparatus, which transmits program information (**see Figure 1**), to information receiving apparatus (**see Column 9, Lines 24-25 for receiving information at a receiver**).

Matsuzaki also discloses a plurality of video and audio encoding means (**see elements 82a, 82v in Figure 2**).

Matsuzaki also discloses a program information data generating means for generating data of the program information (**see elements 82d in Figure 1**).

Matsuzaki also discloses a first multiplexing means for multiplexing the program information, video and audio (**see element 34 in Figure 1 and Column 4, Lines 41-50 for forming pairs of the multiplexed data**).

Matsuzaki also discloses a second multiplexing means for multiplexing the multiplexed plurality of pairs of encoded video signals and encoded audio signals (**see program multiplexing section 36 in Figure 1 and Column 6, Lines 5-39 for multiplexing the plurality of pairs of encoded video signals and encoded audio signals from multiplexing units 34a through 34n**).

Matsuzaki also discloses a control means for controlling a data output rate of each of the plurality of video encoding means, a data output rate of the plurality of audio encoding means and a data output rate of the program information data generating means (**see Column 6, Lines 5-39 for the second multiplexing means being controlled by control section 33 and controlling data output rate based on the priority information for each pair of encoded audio/video/data signals**).

Matsuzaki also discloses a control means for controlling a multiplexing ratio among the encoded video data, the encoded audio data and the data of the program information in the second multiplexing means (**see Column 6, Lines 5-39 for the second multiplexing means being controlled by control section 33 and multiplexing the encoded video, encoded audio and program information data**) and controlling a video data occupation bandwidth, an audio data occupation bandwidth, and a program data occupation bandwidth in relation to a transmission channel bandwidth (**see Column 4, Lines 63-67 for Matsuzaki disclosing that the multiplexing control indicates preferentially multiplexing of the information with higher priority by controlling on/off of the multiplexing according to the priority for each encoded bit stream 75**). ***For further support, note Column 6, Line 60 through Column 7, Line 16 for multiplexing according to a priority table. Therefore, a video, audio and data occupation bandwidth is clearly controlled in relation to the channel bandwidth available for transmitting programs.***

Matsuzaki further teaches that said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased **(see Column 2, Lines 26-28, 35-39 and 65-66 and Column 3, Lines 1-4 and Column 4, Line 63 through Column 5, Line 3 for controlling the multiplexing ratio by controlling how much information is added to the encoded bit stream, which in turn "*that multiplexing or not multiplexing certain media information is supposed to control a transmission rate of the media information*").** ***Therefore, if***

audio and video data have a low priority and program information has a high priority, more program information will be transmitted, thereby increasing the transmission rate of the program.

Although Matsuzaki discloses that the multiplexed signal can be received by a client receiver (**see Column 9, Lines 21-25**), Matsuzaki fails to teach that the information receiving apparatus reads content of a program information data of a current program and a next program at a re-transmission cycle of the program information data of the current program and the next program, and recognizes a transmission status of the program information data indicating whether the program information data is being transmitted.

Eyer discloses teach that an information receiving apparatus reads content of a program information data of a current program and a next program (**see Column 12, Line 50 through Column 13, Line 19 and Figure 2 for a receiving apparatus processing trickle and demand data streams that represent program information data (*further note Column 15, Line 62 through Column 16, Line 44 for the trickle and demand data streams containing current and next program information data*) for different time periods**) at a re-transmission cycle of the program information data of the current program and the next program (**see Column 15, Lines 51-61 for repeating the trickle and demand data streams at different repeating/retransmission cycles**), and recognizes a transmission status of the program information data indicating whether the program information data is being transmitted (**see Column 17, Lines 36-50 for the decoder/receiver identifying a PID ,**

which indicates location of the program information data can be retrieved and therefore teaches a transmission status of the program information data indicating that the program information data is being transmitted at a current location for retrieval).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the receiving apparatus, as taught by Matsuzaki, using the receiving apparatus functionality, as taught by Eyer, for the purpose of improving the responsiveness and user friendliness of the program guide function by ensuring that the memory in a subscriber's decoder always holds a database which is up-to-date for current programming (**see Column 5, Lines 64-67 and Column 6, Line 1 of Eyer**).

Referring to claims 50, see rejection of claim 44.

Referring to claim 53, see the rejection of claim 49 and further note that Eyer further discloses an acquiring step of acquiring electronic program guide data, at the information receiving apparatus (**see Column 17, Lines 36-50**), only during a data transfer rate increase period (**see Column 15, Lines 51-61 for receiving trickle and demand data streams at different repeating rates, therefore if the trickle data stream is requests and the trickle data stream is transmitted at a higher rate of transmission than the demand data stream, then the user would inherently request acquiring EPG data at a data transfer rate increase period**).

Referring to claims 62-63, see the rejection of claim 44.

Claims 58-61 and 65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan et al. (U.S. Patent No. 6,111,612) in view of Eyer et al. (U.S. Patent No. 5,801,753) in further view of Matsuzaki et al. (U.S. Patent No. 6,522,672) in further view of Shiroshita et al. (U.S. Patent No. 5,892,894).

Referring to claim 58, Ozkan discloses an information receiving apparatus (**see Figure 1**), which receives multiplexed program information that is comprised of a plurality of multiplexed pairs of encoded signals, each pair of encoded signals having one encoded video signal and one encoded audio signal (**see element 22 in Figure 1 and Column 3, Lines 19-20 for demultiplexing a multiplexed program information signal**).

Ozkan also discloses separating means for separating the multiplexed program information (**see demultiplexer 22 in Figure 1 and Column 3, Lines 19-20 for a demultiplexer used for separating the video, audio and data**).

Ozkan also discloses a plurality of decoding means for separately decoding each of the video signals and each of the audio signals (**see Column 3, Lines 20-24 and Figure 1 for a plurality of decoders used for decoding the separated audio and video**).

Ozkan also discloses a storing means for storing the program information separated by the separating means (**see Column 4, Lines 17-19 for storing EPG data in an internal memory within unit 60 in Figure 1**).

Ozkan also discloses a control means for controlling a data acquisition time and for controlling operations of the separating means and the storing means in accordance with a data acquisition time (**see Column 4, Lines 17-19 for controlling the storing operation from demultiplexer 22 by processor 60 and Column 3, Lines 30-33 for separating a channel for viewing using the processor 60**). ***Further note that the viewer controls a data acquisition time by requesting display of an EPG.***

Ozkan is silent in teaching that the control means for controlling a data acquisition time and for controlling operations of separating means and the storing means **in accordance with a transmission rate of the program information** and the data acquisition time.

Eyer teaches a control means for controlling a data acquisition time and for controlling operations of separating means and the storing means **in accordance with a transmission rate of the program information** (**see Column 15, Lines 51-61 for controlling a data acquisition time based on how the EPG data is transmitted at different transmission rates**).

Eyer discloses teach that an information receiving apparatus reads content of a program information data of a current program and a next program (**see Column 12, Line 50 through Column 13, Line 19 and Figure 2 for a receiving apparatus processing trickle and demand data streams that represent program information data (*further note Column 15, Line 62 through Column 16, Line 44 for the trickle and demand data streams containing current and next program information data*) for different time periods**) at a re-transmission cycle of the program information data

of the current program and the next program (**see Column 15, Lines 51-61 for repeating the trickle and demand data streams at different repeating/retransmission cycles**), and recognizes a transmission status of the program information data indicating whether the program information data is being transmitted (**see Column 17, Lines 36-50 for the decoder/receiver identifying a PID , which indicates location of the program information data can be retrieved and therefore teaches a transmission status of the program information data indicating that the program information data is being transmitted at a current location for retrieval**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the receiving apparatus, as taught by Matsuzaki, using the receiving apparatus functionality, as taught by Eyer, for the purpose of improving the responsiveness and user friendliness of the program guide function by ensuring that the memory in a subscriber's decoder always holds a database which is up-to-date for current programming (**see Column 5, Lines 64-67 and Column 6, Line 1 of Eyer**).

Ozkan and Eyer fail to teach that said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be decreased

Matsuzaki further teaches that said control means controls said multiplexing ratio to enable acquisition of program information in a reduced period of time by increasing transmission of program data when transmission of video data and audio data can be

decreased **(see Column 2, Lines 26-28, 35-39 and 65-66 and Column 3, Lines 1-4 and Column 4, Line 63 through Column 5, Line 3 for controlling the multiplexing ratio by controlling how much information is added to the encoded bit stream, which in turn "*that multiplexing or not multiplexing certain media information is supposed to control a transmission rate of the media information*"). Therefore, if audio and video data have a low priority and program information has a high priority, more program information will be transmitted, thereby increasing the transmission rate of the program.**

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the information receiving apparatus, as taught by Ozkan and Eyer, using the multiplexed pairs of audio and video signals, as taught by Matsuzaki, for the purpose of allowing a receiver to easily edit or process the information (**see Column 9, Lines 22-24 of Matsuzaki**).

Referring to claim 59, see the rejection of claim 58.

Referring to claim 60, see the rejection of claims 58.

Referring to claim 61, see the rejection of claims 49 and 58 for teaching both the transmitter and receiving that comprise the system of claim 61.

Referring to claims 65-67, see the rejection of claim 58, and further note that Eyer discloses extracting information of a transmission status of the program information that is included in the program information data separated by the separating means (**see Column 11, Lines 10-23 for extracting a field of the program information that states if the status of the transmission is trickle data or demand data**).

Referring to claim 68, see the rejection of claim 61 and note that Eyer discloses extracting information of a transmission status of the program information that is included in the program information data separated by the separating means (**see Column 11, Lines 10-23 for extracting a field of the program information that states if the status of the transmission is trickle data or demand data**).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason P Salce/
Primary Examiner, Art Unit 2421

Jason P Salce
Primary Examiner
Art Unit 2421

November 21, 2008